

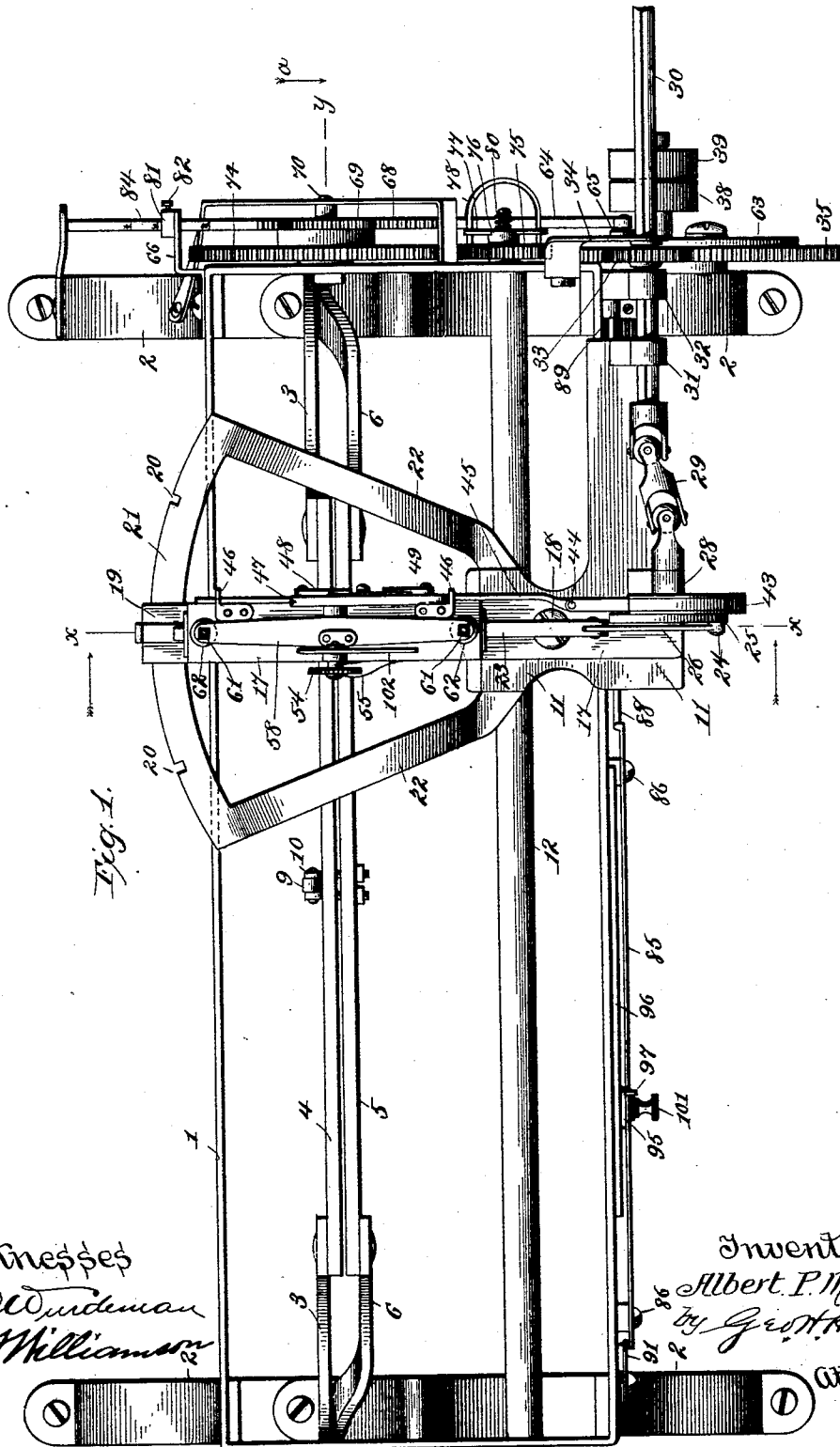
(No Model.)

5 Sheets—Sheet 1.

A. P. MOSES.
SAW FILER.

No. 580,055.

Patented Apr. 6, 1897.



Witnesses
E. W. Anderson
J. Williamson

Inventor
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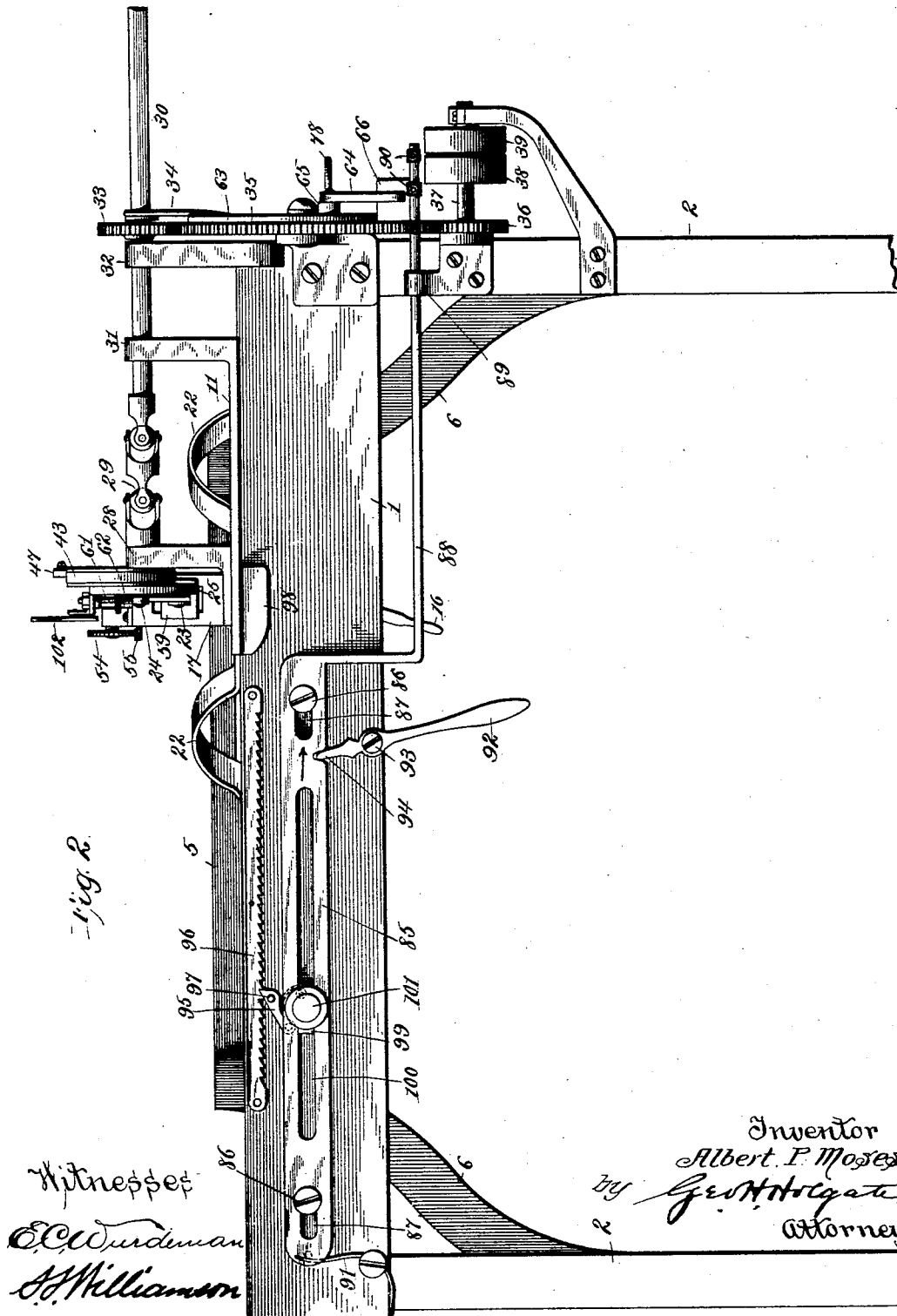
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5 Sheets—Sheet 2.

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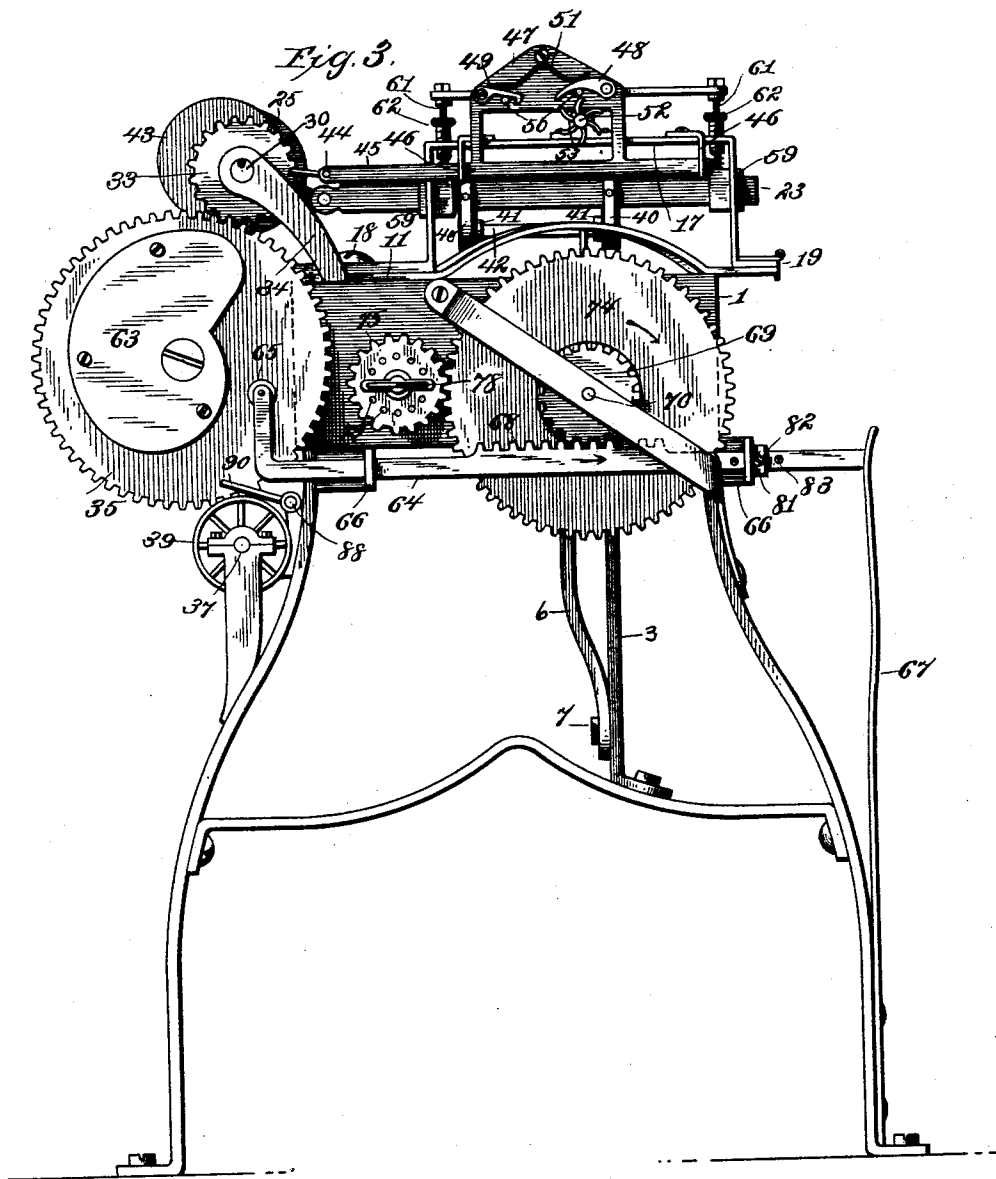
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5 Sheets—Sheet 3.

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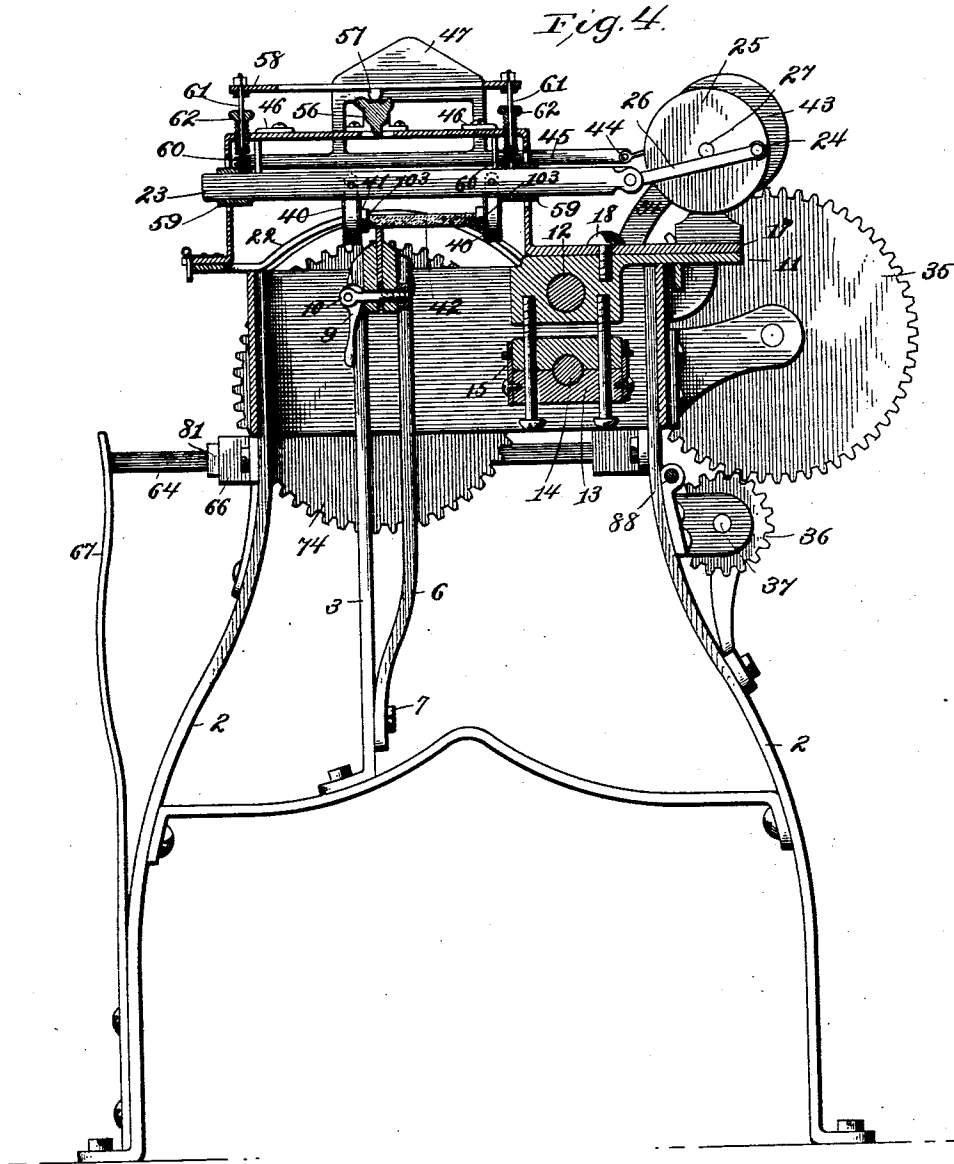
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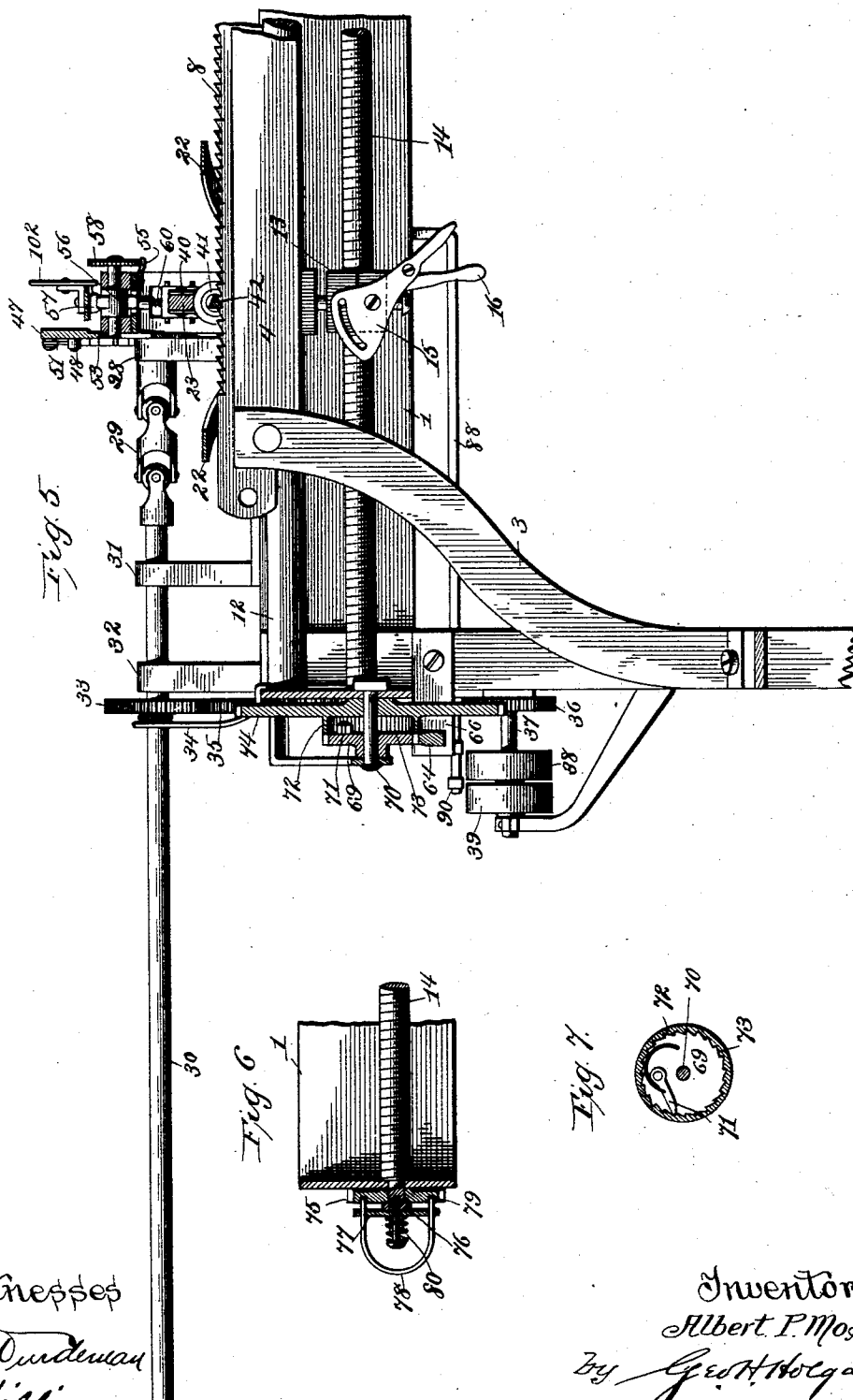
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5 Sheets—Sheet 5.

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UNITED STATES PATENT OFFICE.

ALBERT P. MOSES, OF MALONE, NEW YORK.

SAW-FILER.

SPECIFICATION forming part of Letters Patent No. 580,055, dated April 6, 1897.

Application filed May 26, 1896. Serial No. 593,100. (No model.)

To all whom it may concern:

Be it known that I, ALBERT P. MOSES, a citizen of the United States, residing at Malone, in the county of Franklin and State of New York, have invented certain new and useful Improvements in Saw-Filers, of which the following is a specification.

My invention relates to a new and useful improvement in saw-filing machines, and has for its object to so construct such a device as to provide for the proper filing of all classes of handsaws or other saws that may fall within its capacity.

With these ends in view my invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction and operation in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view of a machine built in accordance with my improvement; Fig. 2, a front elevation thereof; Fig. 3, an end view showing the cam and gear mechanism; Fig. 4, a section at the line $x x$ of Fig. 1, looking in the direction of the arrow; Fig. 5, a section at the line y , looking in the direction of the arrow A, of a portion of the machine; Fig. 6, a detail section illustrating the clutch mechanism of the feed-screw for engaging and disengaging said screw with its actuating-pinion; and Fig. 7, a detail section of the hub of the feed-gear, showing the internal ratchet-teeth therein and the pawl carried by the pinion for actuating said gear.

Referring to the drawings in detail, 1 represents the bed of the machine, which is here shown as rectangular, but may be of any desired shape for the support of the several operating parts thereof, and this bed is mounted upon the legs 2, from the cross-bars of which extend uprights 3, adapted to support the stationary clamp 4, and 5 is a movable clamp adapted to work in conjunction with the stationary clamp, and said movable clamp is supported by the arms 6, the latter being secured at 7 to the uprights. These clamps when taken in conjunction serve to hold the saw 8 in position while being operated upon by the

machine. I prefer to provide these clamps with a lever 9, having a cam upon its inner end, which latter is pivoted between the forked end of the stud 10, said stud being secured in the stationary clamp and passing loosely through the movable clamp in order that when the lever is so manipulated to bring its cam-surface to bear against the movable clamp the latter will be forced tightly against the saw.

A carriage 11 is mounted upon one edge of the bed and bearing upon a guide-rod 12 in any suitable manner, so as to be moved longitudinally upon said bearings, but prevented from any sidewise movements. Depending from the under side of the carriage is a spline-nut 13, adapted to engage the threads of the feed-screw 14, so that when the latter is revolved the carriage will be fed in one direction or the other, as the case may be. The spline-nut is adapted to be locked into and out of engagement with the feed-screw by the levers 15 and 16 or other suitable device, the object being to permit the free movement of the carriage without reference to the screw, or cause said screw to actuate said carriage, and this screw is automatically operated, as hereinafter set forth.

Mounted upon the carriage is a head 17, which is pivoted to the carriage at 18, so as to be swung to a number of angles relative to the bed, and consequently the saw carried within the clamp, and when so swung may be held in the desired adjustment by the latch 19 entering into engagement with suitable notches 20 in the segmental bar 21, and is connected to and supported by the carriage through the curved arms 22.

Within the head is secured the file-bar 23 by passing through suitable boxes 24, thus adapting said bar to slide to and fro lengthwise of said head and crosswise of the bed, reciprocating motion being given to this bar by the crank-pin 25, carried by the disks 26, said crank-pin being connected to the file-bar by a pitman 27. The disk 25 is mounted upon a short shaft 28, which has its bearing in the box 29, so that when said shaft is revolved the file-bar is caused to move back and forth, and the rotation of the shaft 27 is brought about through the universal joint 30, which connects said shaft to the spline-shaft

30, the latter having one bearing in the box 31, which projects upward from the carriage, and the other a bearing in the box 32, supported by the bed of the machine.

5 A pinion 33 is splined upon the shaft 30, and is held against longitudinal movement by the box 32 and a bracket 34. This arrangement permits the driving of the shaft 30 by the revolving of the pinion and at the same time allows said shaft to move longitudinally with the carriage. Rotation is imparted to the pinion 33 by the mesh therewith of the gear 35, which in turn is driven by the pinion 36, secured upon the drive-shaft 37, upon which is also secured the tight pulley 38, having arranged in juxtaposition thereto a loose pulley 39. These pulleys are for the reception of a suitable belt, whereby the machine is connected to the proper source of power. Depending from the under side of the file-bar 23 are two straps 40, in which are fitted the sleeves 41, so that the latter may be revolved when occasion requires, and these sleeves are held against rotation by suitable set-screws. The object of the sleeves is to hold the file 42 in its proper relative position to the file-bar.

From the preceding description it will be obvious that when power is applied to the machine, as before described, the file will be caused to reciprocate, and if properly adjusted in relation to the teeth of the saw held by the clamp will act upon said teeth after the manner of hand-filing.

35 Secured upon the short shaft 27 is an eccentric 43, around which is secured a suitable eccentric-strap having pivoted thereto at 44 the slide-bar 45, which is held in the bearings 46, depending from the head so as to have a sliding movement upon said head. This bar carries a yoke 47, upon which is pivoted the spring-actuated pawls 48 and 49, the former acting as a push-pawl and the latter as a pull-pawl, both of which are held against the pins 50 by the doubled-ended spring 51. The object of these pawls is to impart rotation to the cam-shaft 52 by engagement with the teeth of the ratchet-wheel 53 during the to and fro movements of the slide-bar.

50 The shaft 52 is journaled in suitable boxes supported by the head and has a ratchet-wheel 54 secured to the opposite end, upon which the ratchet 53 is secured, and a spring-pawl 55 is adapted to engage with the teeth of the ratchet 54 to prevent the retrograde movement of the cam-shaft. Also secured upon the shaft 52 is a cam 56, having projecting therefrom three cam-points, two of which are the same length, but one is somewhat longer than the other two, and these points are arranged to operate upon the lug 57, which latter is carried by the cross-bar 58, so that when the cam-shaft is given an intermittent rotation through its ratchet-and-pawl mechanism the cam-points will successively come in conjunction with the lug 57, thereby elevating the cross-bar 58, which in turn will

elevate the boxes 59, in which the feed-bar 23 is carried against the action of the springs 60, through the rods 61, which connect said cross bars and boxes, as clearly shown in Fig. 4. The tension of the springs 60 may be varied by the threaded studs 62, through which the rods 61 pass, said studs being run through the upper portion of the head. From this it will be seen that the file-bar during its reciprocations imparted thereto by the crank-pin 24 will also be raised and lowered more or less through the action of the cam-points 56 upon the lugs 57, said cam-points elevating the file-bar and the springs 60, returning it to its position, and these cam-points are so timed as to elevate the cam-bar during its return movement and permit it to resume its normal position during its forward stroke, the obvious result being that the file carried by said bar when in proper relative position to the teeth of the saw will act upon said teeth during its forward stroke with a spring-pressure equal to the tension of the springs 60, but will be lifted out of contact with said teeth upon its reverse movement, the object of the longest cam-point being to lift the file above the points of the teeth of the saw in order that the feeding movements of the carriage, which will be hereinafter set forth, will not interfere with said teeth.

In a machine of this description it is essential that the mechanism by which the file is carried shall be fed intermittently and that this mechanism shall dwell during the operations of the file upon the teeth of the saw, which result is accomplished in my improvement in the following manner:

Secured to the face of the gear-wheel 35 is a scroll-cam 63, the cam-surface of which is of such contour as to give a constant outward movement to the rack-bar 64 by the contact of the roll 65 with said surface and then pass out of contact with said roll in such manner as to permit the rack-bar to swing inward with a sudden movement. The rack-bar 64 is guided in suitable bearings 66, so as to have a movement crosswise of the machine, and is returned to its normal position, after being released by the scroll-cam, by the plate-spring 67, the lower end of which is secured to the legs of the machine, the upper end bearing against the outer end of the rack-bar.

The teeth 68 of the rack-bar mesh with the feed-pinion 69, which latter is journaled upon the stud 70 and carries a spring-actuated pawl 71, and this pawl is housed within the recessed hub 72 and adapted to engage with the ratchet-teeth 73, formed upon the inner wall of said hub, so that when the rack-bar is moved in the direction of the arrow thereon by the action of the scroll-cam the revolving of the pinion 69 will have no effect upon the hub 72, on account of the pawl-and-ratchet mechanism within said hub being so arranged as to permit the pawl to slip backward over the teeth of the ratchet; but when the rack-bar is freed by the scroll-cam and the spring

67 forces said bar in a reverse direction the pinion 69 will be also revolved reversely, and the pawl 71 will so engage the teeth 73 as to cause the hub 72 to revolve with the pinion.

5 Now as this hub is formed with or rigidly secured to the gear-wheel 74, which latter is journaled upon the stud 70, it is obvious that it will be revolved in the direction of the arrow marked thereon; and as the gear-wheel 10 74 meshes with the pinion 75 said pinion will also be caused to revolve in an opposite direction to the gear-wheel. The last-named pinion is loosely journaled upon the outer end of the feed-screw, and a clutch-collar 76 15 is rigidly secured upon the screw, serving the twofold purpose of holding the pinion in position and also act as a clutch, with which the latch-bar 77 is adapted to engage, said latch-bar being provided with a yoke 78, the ends 20 of which pass through the latch-bar and are adapted to engage with a series of holes 79, formed in the face of the pinion. The springs 80 serve to hold the latch-bar normally in engagement with the clutch and the ends of 25 the yoke in engagement with the holes.

Assuming that the latch-bar and the ends of the yoke are in engagement with the clutch-collar and holes, respectively, it will be seen that when the scroll-cam permits the reverse 30 movement of the rack-bar the revolving of the gear 74 and pinion 75, as before described, will also cause the feed-screw to revolve, which, as before described, will move the carriage a given distance to the left, and this 35 distance is determined by the amount of revolution of the screw, which in turn is dependent upon the distance through which the rack-bar travels upon its reverse movement.

To regulate the distance of travel of the 40 rack-bar, a collar 81 is placed upon the outer end of said bar and provided with a set-screw 82, adapted to engage with the spottings 83, formed in the bar, and these spottings are preferably indicated by the scale 84, so that 45 when the number of teeth to the inch upon the saw is known it is only necessary to set the collar 81 at a corresponding graduation upon the scale to cause the feed-screw to move a distance at each actuation equal to 50 the distance apart of each of the teeth of the saw, the reason for which being when the rack-bar is released by the cam and permitted to move inward by the action of the spring 67 this inward movement will be arrested by the collar coming in contact with 55 the outer bearing 66, in which said bar slides, thereby limiting the movement of the rack-bar and stopping the feed-screw after it has moved the carriage the required distance, as 60 will be readily understood.

The cam 63 is so timed relative to the longest cam-point of the cam 56 as to permit the reverse movement of the rack-bar 64 just after said cam-point has elevated the file clear 65 of the teeth of the saw, by which arrangement the feeding of the carriage will in no wise interfere with the teeth of the saw.

In order that the machine may be made automatic as to the stopping thereof when the end of the saw has been reached, a shipper-plate 85 is secured to the side of the bed, 70 so as to have a limited longitudinal movement by the passage of the screws 86 through the slots 87, as clearly shown in Fig. 2, and from this plate extends the shipper-rod 88, 75 having a bearing in the box 89, said rod carrying shipper-fingers 90, which are adapted to embrace a suitable belt running over the pulleys 38 and 39, so that when the shipper-plate is moved longitudinally said belt will 80 be shipped to either the tight or loose pulley, stopping or starting the machine as the case may be. A spring 91 is so arranged as to give the shipper-plate a tendency to move in the direction of the arrow-mark thereon, and 85 as this is the direction in which the plate moves to carry the drive-belt onto the loose pulley it is obvious that when the plate is permitted to move in this direction said belt will be shifted to the loose pulley, thereby 90 stopping the machine, as is well understood. Therefore to start the machine it is only necessary to move the shipper-plate in a reverse direction to the arrow, and this may be accomplished by the operation of the lever 92, 95 which is pivoted at 93, and has a nose 94, projecting into engagement with a notch formed in said plate.

When the shipper-plate is moved as last described, it will be held against the action 100 of the spring 91 by the engagement of the spring-actuated dog 95 with the teeth in the ratchet-bar 96, said ratchet-bar being rigidly secured to the side of the bed. From the dog 95 projects a pin 97, which is within the line 105 of travel of the shoe 98, secured to the carriage, so that when said carriage has been moved by the feed-screw sufficiently to bring the shoe into contact with the pin the dog will be depressed out of engagement with the 110 ratchet-bar 96, which will free the shipper-plate 85 and permit the spring 91 to force it in the direction of the arrow, thereby shipping the drive-belt from the tight to the loose pulley, thereby stopping the machine. 115

The point in the travel of the carriage at which the belt is shifted to stop the machine, as just described, may be varied and is determined by the location of the dog 95 relative to the ratchet-bar, and the adjustment of this 120 dog is brought about by the block 99, to which it is pivoted, being guided in the slots 100, formed in the shipper-plate, and a set-screw 101, threaded within said block, so that the latter may be adjusted to any point within 125 the slot and there held by the proper manipulation of the set-screw. The object of this adjustment is to stop the machine when the file has reached the end of the saw.

In operating the machine the saw to be 130 filed is first placed within the clamps after the carriage has been moved to the extreme right of the bed, and if the saw to be operated upon has eight teeth to the inch the collar 81

upon the rack-bar is set to the graduation marked "8" and secured by the set-screw. The dog 95 is so set that the machine will be stopped by the shifting of the drive-belt at the end of the saw, and the split nut is then closed on the feed-screw, and finally the file is let down by means of the lever 102, which has a notch formed in its lower end for engagement with one of the boxes in which the shaft 52 is journaled. Care should be taken in this last operation to cause the file to stand in the first tooth of the saw next to the handle, after which the machine is started by operating the lever 92 to force the shipper-plate against the action of the spring 91, which will carry the drive-belt onto the tight pulley. Now as the machine continues to operate the file will make three strokes upon the first tooth of the saw, when it will be lifted clear of said tooth just prior to the feeding of the carriage lengthwise, as before described, which feed movement will carry the file into position to operate on the next tooth, which will also be given three strokes of the file, and so on until all of the teeth of the saw have been operated upon, at which time the shoe 98 will disengage the dog 95 from the ratchet-bar, permitting the shifting of the belt and the stopping of the machine.

When rip-saws are to be sharpened, the head is adjusted at right angles to the length of the bed of the machine, which is also at right angles to the saw, thereby causing the file to act upon the teeth of said saw in a straight line, which is the preferred way of filing a rip-saw; but when cutting-off saws and the like are to be sharpened the head is adjusted at an angle to the saw, as before described, and after the carriage has moved the full length of the saw, filing the teeth upon one angle, it is moved back to the starting-point and again set in operation after the head has been adjusted to a like angle upon the opposite side of the center line of the carriage and the file again permitted to operate upon the teeth. This, as is well understood, will give the teeth of the saw the proper hook or clearance.

In practice it will be found that the file, on account of the spring action thereon in moving forward and acting upon the teeth, and also on account of its being lifted out of contact with the tooth upon its reverse movement, the effect upon the saw-teeth will be identical with that had when filed by hand, with the advantage of having every tooth filed at exactly the same angle and with the same amount of force exerted upon the file.

After one edge of the file has become worn either of the other edges may be brought into operative position by loosening the set-screws 103 and revolving the sleeves 41 within the straps 40. A suitable crank-handle may be placed upon the feed-screw at one end thereof, so that when it is desired to feed the carriage one way or the other in bringing the file to its proper initial position with respect

to the saw-teeth this may be accomplished by the withdrawal of the latch-bar 77 and the ends of the yoke 78 from the clutch and holes, respectively, by this crank without interfering with the other mechanisms of the machine.

I am aware that other slight modifications might be made in the construction here shown and described without departing from the spirit of my invention, and I therefore do not wish to be limited to this exact design.

Having thus fully described my invention, what I claim as new and useful is—

1. In a device of the character described, a drive-shaft, a tight and loose pulley thereon, a belt-shipper consisting of a spring-pressed slidable bar, shipper-fingers arranged thereon, a lever for forcing the bar against the action of its spring, a spring-pressed dog adjustably secured on the bar, a ratchet-bar adapted to be engaged by the dog, a carriage carrying a shoe to force the dog out of engagement with the ratchet-bar, thereby permitting the bar to slide by the action of its spring, as and for the purpose described.

2. In a device of the character described, a frame, a reciprocating file-bar thereon, spring-pressed slidable boxes in which said file-bar slides, a file carried by the file-bar, a reciprocating yoke, pawls pivoted to the yoke, a ratchet-wheel journaled in the frame adapted to be engaged by the pawls, a cam connected to said ratchet-wheel having a number of points one of which being larger than the others, a lug adapted to engage the points of the cam and be elevated thereby, a cross-bar on which said lug is formed, and rods for connecting said cross-bar to the boxes, as and for the purpose described.

3. In a machine for filing saws, a frame for supporting the several operating parts thereof, a clamp for holding the saw, a carriage adapted to slide longitudinally of the machine, a feed-screw for bringing about said sliding movements of the carriage, a head pivoted to the carriage and adapted to be adjusted at an angle thereto, a file-bar carried by the head and adapted to support the file, means for giving said file-bar a reciprocating motion, a yoke also carried by the head, means for giving said yoke a reciprocating motion, a ratchet mechanism connected with the yoke, a cam carried by said ratchet mechanism adapted to raise the file-bar, springs for returning said bar to its normal position, feed mechanism for revolving the screw, and a cam receiving its motion from the drive-shaft of the machine adapted to actuate said feed mechanism, substantially as shown and described.

4. In a saw-filing machine, a suitable frame for supporting the several operating parts thereof, a carriage supported upon said frame, feed mechanism for moving the carriage longitudinally, a head pivoted upon the carriage so as to swing sidewise, a file-bar carried by suitable boxes secured within the head, a

cam-shaft journaled upon said head, a cam carried by said shaft, means for imparting motion from said cam to the file-bar, a ratchet secured upon the cam-shaft, pawls adapted to engage said ratchet, a yoke to which said pawls are pivoted, a slide-bar carrying said yoke, an eccentric for imparting motion to the slide-bar, a crank-disk having a pin projecting therefrom through which motion is imparted to the file-bar, and means for bringing about the several movements of the machine, substantially as shown and described.

5. In a machine for filing saws, a bed, a carriage mounted thereon, a feed-screw for causing said carriage to move longitudinally, a head pivoted upon the carriage, two boxes arranged within the head, a file-bar guided within said boxes, means for carrying the file upon said bar, a crank and pitman for imparting reciprocation to the file-bar, a yoke, a slide-bar carrying said yoke, an eccentric for imparting reciprocation to said slide-bar, pawls pivoted to the yoke, a ratchet-wheel with which said pawls are adapted to engage, a cam-shaft upon which said ratchet is secured, a three-pointed cam secured upon said shaft, a lug with which said cam is adapted to engage, a cross-bar upon which said lug is formed, rods for connecting said cross-bar to the boxes, springs for retaining said boxes in their lowered position, and means for imparting motion to the mechanism, substantially as shown and described.

6. In a saw-filing machine, the combination of the file-carrying mechanism, as described, with a feed-gear, a pinion mounted upon said gear, a gear meshing with said pinion, a hub carried by said gear, ratchet-teeth formed within said hub, a pinion journaled concentric with said hub, a pawl carried by said pinion adapted to revolve the gear in one direction but permit it to dwell when the last-named pinion is revolved in the opposite direction, a rack-bar for imparting rotation to the last-named pinion, and a cam connected with the power-shaft adapted to reciprocate said rack-bar, substantially as and for the purpose set forth.

7. The combination of a file-carrying mechanism of a saw-filing machine, with a screw for feeding said mechanism, a pinion 75, loosely mounted upon said screw, a clutch for connecting and disconnecting said pinion to and from said screw, a gear-wheel 74, adapted to drive said pinion, a recessed hub formed with the gear, ratchet-teeth formed upon the interior of said hub, a pinion 69, journaled concentric with said hub, a pawl carried by the pinion 69, a rack-bar meshing with the last-named pinion, a spring adapted to force said rack-bar inward whereby the pinion 69, will be caused to revolve and in turn through the pawl and ratchet revolve the gear 74, a gear-wheel 35, adapted to be driven by the power-shaft, and a cam carried by said gear adapted to force the rack-bar outward against the action of its spring whereby the pinion 69,

will be revolved in a reverse direction without affecting the revolution of the gear 74, substantially as and for the purpose set forth.

8. The combination of a file-carrying mechanism of a saw-filing machine, with a screw for feeding said mechanism, a pinion 75, loosely mounted upon said screw, a clutch for connecting and disconnecting said pinion to and from said screw, a gear-wheel 74, adapted to drive said pinion, a recessed hub formed with the gear, ratchet-teeth formed upon the interior of said hub, a pinion 69, journaled concentric with said hub, a pawl carried by the pinion 69, a rack-bar meshing with the last-named pinion, a spring adapted to force said rack-bar inward whereby the pinion 69, will be caused to revolve, and in turn through the pawl and ratchet revolve the gear 74, a gear-wheel 35, adapted to be driven by the power-shaft, a cam carried by said gear adapted to force the rack-bar outward against the action of its spring whereby the pinion 69, will be revolved in a reverse direction without affecting the revolution of the gear 74, a pinion 33, meshing with the gear 35, a longitudinal sliding shaft 30, to which the last-named pinion is splined, a universal joint 29, one end of which is connected to the said shaft, a shaft 27, to which the opposite end of the universal joint is attached, and a crank and disk carried by the last-named shaft for operating the file-carrying mechanism, substantially as and for the purpose set forth.

9. The combination of a file-carrying mechanism of a saw-filing machine, with a screw for feeding said mechanism, a pinion 75, loosely mounted upon said screw, a clutch for connecting and disconnecting said pinion to and from said screw, a gear-wheel 74, adapted to drive said pinion, a recessed hub formed with the gear, ratchet-teeth formed upon the interior of said hub, a pinion 69, journaled concentric with said hub, a pawl carried by the pinion 69, a rack-bar meshing with the last-named pinion, a spring adapted to force said rack-bar inward whereby the pinion 69, will be caused to revolve, and in turn through the pawl and ratchet revolve the gear 74, a gear-wheel 35, adapted to be driven by the power-shaft, a cam carried by said gear adapted to force the rack-bar outward against the action of its spring whereby the pinion 69, will be revolved in a reverse direction without affecting the revolution of the gear 74, a pinion 33, meshing with the gear 35, a longitudinal sliding shaft 30, to which the last-named pinion is splined, a universal joint 29, one end of which is connected to the said shaft, a shaft 27, to which the opposite end of the universal joint is attached, a crank and disk carried by the last-named shaft for operating the file-carrying mechanism, a pinion 36, meshing with the gear 35, a shaft 37, upon which said pinion is mounted, a tight and loose pulley carried by said shaft, shipper-fingers arranged to control a suitable belt running upon said pulleys, a shipper-rod carrying said fingers,

a shipper-plate to which said rod is attached, a spring for normally forcing said plate in one direction, a lever for forcing said plate in the opposite direction, a dog made adjustable upon said plate, a ratchet-bar secured to the bed of the machine with which said dog is adapted to engage, and a shoe carried by the file-carrying mechanism for forcing said dog out of engagement with the ratchet-bar to permit the shifting of the belt, substantially as and for the purpose set forth.

10. In a machine of the character described, a scroll-cam driven by the drive-shaft, a rack-bar adapted to be operated in one direction by said cam, a spring for returning said rack-bar to its normal position, a pinion meshing with said rack-bar, a gear connected with said pinion by a ratchet and pawl so as to revolve therewith in one direction, but dwell when the pinion is revolving in the opposite direction, and means—as a collar—for determin-

ing the distance through which the bar may travel to bring about the feeding of the file-carrying mechanism, substantially as shown and described.

11. In a device of the character described a drive-shaft, a tight and a loose pulley thereon, a belt-shipper consisting of a spring-pressed bar slidably secured to the machine, an adjustable spring-pressed dog secured thereto, a ratchet-bar on the machine engaged by said dog, a lever pivoted to the machine for moving the bar against the action of its spring and means for automatically releasing the dog as and for the purpose described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

ALBERT P. MOSES.

Witnesses:

S. S. WILLIAMSON,
HERBERT H. SEAVER.